

1 106% (103,000 trunks in service EOY 2000 and 50,000 trunks in service EOY 1999). If
2 Cox targets customers who primarily receive calls, like ISPs, and Cox knows that most of
3 those calls originate from Verizon VA end users, then only Cox knows how many trunks
4 will be required for the traffic that originates on Verizon VA's network. The CLEC is
5 the only Party privy to its own marketing plans. This factor, by far, has the greatest
6 influence on the need (both trunk quantities and trunk installation timing) for
7 interconnection trunks required to carry calls from Verizon VA's network to the CLEC's
8 network.
9

10D. UNDERUTILIZED TRUNK GROUPS

11 **Q. VERIZON VA WANTS THE RIGHT TO TERMINATE TRUNK GROUPS**
12 **WHEN THOSE TRUNK GROUPS ARE UNDERUTILIZED. WHY SHOULD**
13 **VERIZON VA HAVE THIS RIGHT (Issue III-4-b)?**

14 A. Without the right to disconnect excess trunk groups when they are significantly
15 underutilized, Verizon VA will not be able to manage its network in an efficient manner.
16 This could have a negative impact on the quality of service provided by Verizon VA to
17 all carriers if unneeded trunks are left in service for one carrier. Verizon VA is
18 responsible for the operational performance (amount of trunk blocking) for the final trunk
19 groups carrying calls from Verizon VA's network to AT&T's network. Verizon VA has
20 proposed that it would disconnect excess interconnection trunk groups operating at a
21 utilization level under 60%. Trunk group utilization data is developed from monthly
22 traffic studies based on the actual load and calling volumes carried by the trunk group.
23 Utilization for a trunk group is a ratio of "trunks required" to "trunks in service." For a
24 specific trunk group, "trunks required" is the calculation of the number of trunks needed

1 to provide service at the engineering design level, based on the actual traffic loads carried
2 by the trunk group during the study period. "Trunks in service" is the actual number of
3 trunks in operation during that period. Verizon VA uses this utilization measurement to
4 monitor and add/or disconnect trunks for itself and for the CLECs. The 60% utilization
5 level proposed by Verizon VA is lower than the utilization at which Verizon VA operates
6 its own network. Verizon VA will provide the trunks required to provide service to the
7 CLECs, but Verizon VA must have the right to engineer and manage these trunk groups
8 the same way, and at the same grade of service, as Verizon VA engineers and manages
9 trunks within its own network. AT&T should not be able to force Verizon VA to provide
10 it with a grade of service greater in quality than what Verizon VA provides itself, by
11 refusing to disconnect underutilized trunks. AT&T does not pay for these trunks;
12 Verizon VA does. If they are not being utilized efficiently, Verizon VA should be
13 allowed to disconnect them – unless AT&T agree that it will pay for the unneeded extra
14 capacity, which is not a commitment it has been willing to make.

15

16E. TWO-WAY TRUNKING

17 **Q. IN ITS PETITION, WORLDCOM CLAIMS THAT VERIZON VA BELIEVES**
18 **THAT IT SHOULD BE ABLE TO REFUSE TO USE TWO-WAY TRUNKING. IS**
19 **THAT TRUE? (Issue IV-2)?**

20 **A.** No. Contrary to WorldCom's claim, Verizon VA is not opposed to offering WorldCom
21 two-way trunks. Verizon VA does maintain, however, that the Parties need to agree on
22 the standards that need to be maintained by *both* Parties for two-way trunking
23 architecture, and reflect that understanding in the interconnection agreement.

24

1 **Q. WHY SHOULD VERIZON VA AND WORLDCOM REACH MUTUAL**
2 **AGREEMENT ON THE STANDARDS FOR TWO-WAY TRUNKING?**

3 A. Verizon VA and WorldCom need to reach mutual agreement on the standards for two-
4 way trunking because both Parties' traffic would travel over the same trunks. Network
5 integrity depends on such agreement. Imagine if there were no traffic laws when driving
6 an automobile. There would be no rules as to which side of the road to drive on or at
7 what speed. For the same reason, there must be agreement on the standards applicable to
8 two-way trunking over the same trunks. Because two carriers are sending traffic over the
9 same trunk from the two ends, the actions of one affect the other – such as if one sends an
10 unannounced increase in traffic that causes blocking of the other carrier's traffic.
11 Numerous CLECs have agreed to the same terms and conditions for two-way trunking
12 that Verizon VA has proposed to WorldCom. In Virginia, fifteen CLECs reached such
13 agreement. WorldCom has offered no explanation as to why it should be different on this
14 issue from the other CLECs in Virginia.

16 **Q. WHY DOES WORLDCOM OBJECT TO VERIZON VA'S TWO-WAY**
17 **TRUNKING PROPOSAL?**

18 A. WorldCom objects to Verizon VA's two-way trunking proposal because WorldCom
19 disagrees with Verizon VA's GRIP and VGRIP proposals. WorldCom is adamant that
20 Verizon VA should be financially responsible for WorldCom's interconnection decisions.
21 Accordingly, WorldCom objects to Verizon VA's attempts to establish efficient
22 interconnection. WorldCom is also opposed to deploying additional trunks to end offices
23 once the final trunk group going to the tandem reaches 240 trunks. This limitation

protects Verizon – and all the carriers and customers using its network – against early tandem exhaust.

III. ALTERNATIVE INTERCONNECTION ARRANGEMENTS (ISSUES I-3, III-3, III-3-A, V-2)

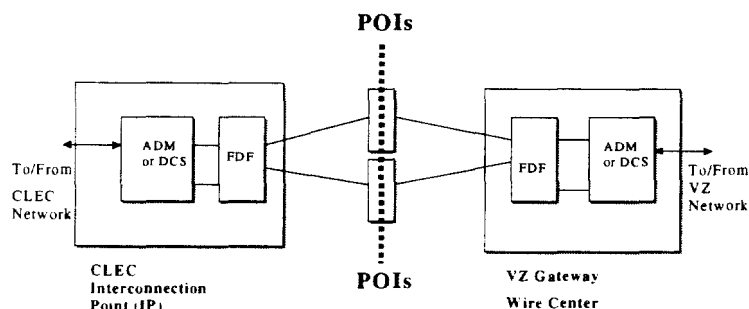
7A. MID-SPAN FIBER MEET POINT INTERCONNECTION

Q. WHAT IS A MID-SPAN FIBER MEET POINT OF INTERCONNECTION (Issue III-3)?

A. A mid-span fiber meet point of interconnection is an alternate form of local interconnection architecture where Verizon VA and the CLEC generally share equally the costs to build the facility and equally split the capacity for transport. The arrangement must occur pursuant to mutual agreement between Verizon VA and the CLEC. Prior to provisioning, a Memorandum of Understanding (“MOU”) is developed to memorialize the terms, conditions, technical and operational details, and rates of the mid-span fiber meet. Once the MOU is completed and signed, it becomes an addendum to the interconnection contract. Mid-span fiber meet interconnection differs from traditional interconnection arrangements in that it requires both parties to jointly construct matching and compatible facilities.

The diagram below depicts the mid-span fiber meet point of interconnection.

Mid-Span Fiber Meet diagram



1 **Q. AS AT&T AND WORLDCOM PROPOSE, SHOULD THE SELECTION OF A**
2 **FIBER MEET POINT METHOD OF INTERCONNECTION BE AT THE**
3 **PETITIONERS' DISCRETION?**

4 **A.** Absolutely not. Such interconnection must be by mutual agreement because this form of
5 interconnection requires a high degree of joint provisioning, maintenance and utilization.
6 This type of interconnection is also based on location, size, and type of facilities available
7 and to be installed, as well as potential cost sharing for any new installations. The Parties
8 must agree, among other things, on traffic type, equipment used, compensation,
9 maintenance, and POI locations. In addition, the Parties must reach some understanding
10 on traffic forecasts and make sure that compatible equipment and electronics are being
11 used. The resolution of these issues is normally dependant upon the specific site selected
12 for the mid-span meet.

13
14 Any mid-span fiber meet arrangement must take into consideration where Verizon VA
15 has available fiber. If Verizon VA does not have the fiber available for the arrangement,
16 it would have to provision it specifically for the CLEC's interconnection. The

Commission, however, has recognized that “a requesting carrier that wishes a ‘technically feasible’ but expensive interconnection would, pursuant to section 252(d)(1), be required to bear the cost of that interconnection, including a reasonable profit.” *Local Competition Order* ¶ 199. Thus, if Verizon VA must specially construct fiber for a CLEC in order to establish a mid-span fiber meet unilaterally ordered by CLEC, without any prior agreement with Verizon VA, the CLEC would have access to a “superior” or not yet existing network. In effect, this is a specific, special order for which the ordering CLEC must pay all costs.

Q. HOW MUCH WOULD IT COST VERIZON VA TO “BUILD OUT” ITS FACILITIES FOR A MID-SPAN FIBER MEET?

A. The cost of a particular mid-span fiber meet (for both Verizon VA and the CLEC) can vary widely based upon a number of factors. The transmission capacity will determine the size and type of terminating electronics. Obviously, the longer the build out or fiber length, the higher the fiber cost. The point of interconnection location may present some issues and require some conditioning or expense to make acceptable the mid-span fiber meet. The most important point to remember, however, is that each Party is responsible for the cost of its “build out.” It would be inequitable to allow the CLEC unilaterally to declare where a fiber mid-span fiber meet point should be located, maximizing the cost of the mid-span fiber meet arrangement to Verizon VA. This is why there must be mutual agreement to proceed with this kind of arrangement.

1 **Q. DOES VERIZON VA HAVE A MID-SPAN FIBER MEET POINT OF**
2 **INTERCONNECTION WITH ANY OF THE PETITIONERS IN VIRGINIA?**

3 A. Yes. Verizon VA and Cox reached mutual agreement on the specifics of a mid-span fiber
4 meet arrangement in Virginia. Verizon VA sees no reason why AT&T and WorldCom
5 cannot follow Cox's lead and reach agreement with Verizon VA on this issue.

6
7 **Q. CAN VERIZON VA ESTABLISH AN END POINT OR MID-SPAN FIBER MEET**
8 **POINT OF INTERCONNECTION WITHIN 120 DAYS (Issue III-3-a)?**

9 A. In most cases, yes, provided that there is agreement on when the 120 days starts to run.
10 Verizon VA believes that the 120 day implementation interval to construct the mid-span
11 fiber meet cannot begin until the Parties sign a MOU and not, as AT&T claims, 10 days
12 after Verizon VA receives AT&T's response to its questionnaire. As previously
13 discussed, the Parties need to negotiate the technical and operational details specific for
14 each unique arrangement before construction, engineering, and implementation work can
15 begin. For instance, if the CLEC wants to use an exotic piece of equipment, such as a
16 special fiber optic multiplexer with a long vendor delivery time, or if there is a large
17 amount of new fiber optic construction needed, Verizon VA will not be able to establish a
18 mid-span fiber meet within 120 days. As it is, the 120 days represents an expedited
19 interval for Verizon VA to engineer, order, accept, and turn-up *standard fiber optic*
20 *multiplexer* equipment from its vendors within its own network. Nevertheless, once the
21 Parties have signed the MOU that defines the technical specifics of the mid-span fiber
22 meet, Verizon VA can usually establish a mid-span fiber meet point of interconnection
23 within 120 days.

1

2B. RECIPROCAL COLLOCATION

3 **Q. NONE OF THE THREE PETITIONERS WANT TO MAKE COLLOCATION**
4 **AVAILABLE TO VERIZON VA AT THE PETITIONERS' FACILITIES. IS**
5 **THAT WHAT YOU MEAN BY RECIPROCAL COLLOCATION (Issue I-3)?**

6 A. Yes. Verizon VA is merely seeking the right to terminate its traffic using its own
7 facilities via a collocation arrangement. When Verizon VA collocates at a CLEC's
8 premises, Verizon VA builds its transport facilities into the CLEC's Point of Presence
9 (POP) or central office. Verizon VA builds or places fiber optic cables from one of its
10 central offices into the CLEC's central office. Next, Verizon VA installs a fiber optic
11 system or ring by placing one OC-48 multiplexer in its central office and the companion
12 OC-48 multiplexer in the CLEC's central office. All the CLEC provides Verizon VA is
13 power and space for the Verizon VA multiplexer in the CLEC's central office.

14

15 **Q. WHY SHOULD VERIZON VA BE GIVEN THE OPTION OF COLLOCATING**
16 **AT PETITIONERS' FACILITIES?**

17 A. Just as Verizon VA has provided the Petitioners with several options at which they can
18 interconnect with Verizon VA, they should give Verizon VA similar options. This is a
19 common sense approach to interconnection because it gives both Parties to an
20 interconnection agreement several selections from which they can choose what is best for
21 each of them. If Verizon VA is not given the option of bringing its interconnection trunk
22 into the CLEC's facility, the CLEC can force Verizon VA to hire it as a transport vendor
23 without any assurance that the transport rates it will charge are reasonable.

24

1 Simply stated, because Verizon VA is required by the Telecommunications Act to
2 interconnect with a carrier, it is clearly reasonable that Verizon VA have available to it
3 the same types of interconnection choices that are available to a CLEC so as to provide
4 the most efficient type of interconnection. Thus, a CLEC should be required to provide
5 Verizon VA reciprocal interconnection at reasonable rates, similar to those charged by
6 Verizon VA, or in the alternative its rates for transport should be limited to Verizon VA's
7 transport rates, absent a showing by the CLEC of greater costs. Verizon VA should have
8 the right to collocate so that Verizon VA is not left only with the option of purchasing
9 facilities from the CLECs – at rates that are typically unconstrained by any form of
10 regulation.

11
12 **Q. EVEN IF PETITIONERS ARE NOT LEGALLY REQUIRED BY THE ACT TO**
13 **PERMIT VERIZON VA TO COLLOCATE AT THEIR FACILITIES, WHY**
14 **SHOULD THE COMMISSION ORDER THIS ARRANGEMENT?**

15 A. It is a matter of fairness. Even though they are not required by the Act to offer
16 collocation at their facilities, Petitioners' argument that they should not do so misses the
17 point. Verizon VA is not asking this Commission to exercise its authority under the Act
18 to compel the Petitioners to provide Verizon VA with reciprocal collocation. Verizon is
19 asking this Commission to recognize that each individual Petitioner is the only Party who
20 is in the position to offer this service to Verizon VA. As stated earlier, without this
21 option, the Petitioners could force Verizon VA to haul local traffic over long distances
22 and if they have their way, charge Verizon VA distance-sensitive rates for the privilege.
23 This is an invitation for abuse. Thus, it is only equitable that Petitioners offer Verizon

1 VA interconnection choices comparable to those Verizon VA offers to them. These
2 would include purchasing transport at reasonable rates and building its own facilities and
3 collocating at the CLEC's premises.
4

5C. INTERCONNECTION TRANSPORT

6 **Q. AT&T HAS RAISED AN ISSUE REGARDING THE APPROPRIATE RATE FOR**
7 **VERIZON VA TO CHARGE FOR TRANSPORT PURCHASED FOR PURPOSES**
8 **OF INTERCONNECTION--THE UNE TRANSPORT RATE OR THE CARRIER**
9 **ACCESS RATE. WHAT OPTIONS DOES AT&T HAVE FOR DELIVERING ITS**
10 **TRAFFIC TO VERIZON VA'S IP (Issue V-2)?**

11 A. There are four options: First, AT&T can collocate and purchase UNE interoffice
12 facilities ("IOF") to connect its collocation space to its switch location. Second, AT&T
13 could purchase transport from a third-party vendor. Third, AT&T could self-provision
14 the transport to the Verizon VA IP. Fourth, AT&T could purchase the transport from
15 Verizon VA's access tariffs. It is with respect to this fourth option that AT&T has raised
16 its issue regarding what rates it should pay.
17

18 **Q. WHEN AT&T CHOOSES THIS FOURTH OPTION, WHAT RATES SHOULD**
19 **AT&T PAY?**

20 A. Because AT&T is purchasing transport from Verizon VA's access tariffs, AT&T should
21 pay the appropriate transport rates from the access tariff. The appropriate rate is not the
22 UNE transport rate, which AT&T wants to pay. When AT&T elects this fourth option,
23 AT&T is not utilizing its established collocation arrangement. By the Commission's own
24 definition, in order to qualify for UNE IOF, AT&T needs to establish a collocation

1 arrangement. A UNE IOF is an unbundled component between two central offices in the
2 network in which some form of collocation is necessary for AT&T to interconnect with
3 the appropriate Verizon VA central office. To access UNE IOF, AT&T needs to use its
4 own facilities, not Verizon VA's. Verizon VA charges AT&T the access rate when it
5 purchases transport from Verizon VA without a collocation arrangement because it
6 provides AT&T an end-to-end service.

7
8 **Q. WHAT DO YOU MEAN BY AN END-TO-END SERVICE?**

9 A. When a carrier purchases transport service from the access tariff, Verizon VA provides
10 the transmission facilities and the functionality associated with that transport service from
11 the POI to the Verizon VA switch. This functionality includes the electronics that would
12 normally be in the carrier's collocation arrangement, the cross-connects that run from the
13 collocation site to the Verizon switch, and the ports on the switch itself.

14
15 **Q. IF VERIZON VA'S POSITION IS REJECTED AND AT&T IS ABLE TO**
16 **PURCHASE TRANSPORT FROM VERIZON VA AT UNE RATES UNDER THE**
17 **FOURTH OPTION, WITHOUT COLLOCATION, HAS AT&T CREATED A**
18 **NEW UNE COMBINATION?**

19 A. Yes. If AT&T receives interconnection transport at UNE rates without a collocation
20 arrangement, AT&T will have created a new UNE combination without the
21 accompanying "necessary and impair" analysis that this Commission would need to
22 perform. This new UNE combination would consist of a mid-span meet, UNE IOF, a

1 switch port, and a loop. Given the multiple alternatives available to AT&T, the necessary
2 and impair test could not be met.
3

4 **IV. TRANSMISSION AND ROUTING OF EXCHANGE ACCESS TRAFFIC**
5 **(ISSUE VII-6)**

6 **Q. TO WHAT EXTENT HAVE VERIZON VA AND AT&T AGREED THAT WHEN**
7 **AT&T ORDERS DS-3 FACILITIES IT SHOULD ORDER THOSE FACILITIES**
8 **TO THE VERIZON VA CENTRAL OFFICE THAT IS DESIGNATED AS AN**
9 **INTERMEDIATE HUB LOCATION (Issue VII-6)?**

10 A. The Parties have not been able to reach agreement on this issue. AT&T refuses to order
11 “Muxed DS-3” facilities to a Verizon VA central office designated as an intermediate
12 hub location for local interconnection trunks, as it has as an interexchange carrier for
13 years. With a “Muxed DS-3” the carrier orders a DS-3 that is multiplexed down into 28
14 separate DS-1s that all ride on the same DS-3. This is a different arrangement than when
15 a carrier orders a regular DS-3, where Verizon interconnects the full 45 megabit DS-3
16 bandwidth to the carrier, without providing any multiplexing.
17

18 **Q. WHAT ARE INTERMEDIATE HUB LOCATIONS?**

19 A. Intermediate hub locations are those locations designated in the National Exchange
20 Carrier Association (“NECA”) 4 Tariff that are capable of handling the multiplexing of
21 28 individual DS-1 facilities into a DS-3 facility. To provide this service for multiple
22 carriers, Verizon VA uses a 3x1 electronic digital cross connect machine located in its
23 central office.
24
25

1 **Q. WHEN LOCAL INTERCONNECTION TRUNKS ARE ORDERED AS A**
2 **“MUXED DS-3” INTERFACE, SHOULD VERIZON BE REQUIRED TO**
3 **CONSTRUCT INTERCONNECTION HUBBING FACILITIES AT CENTRAL**
4 **OFFICES OTHER THAN THOSE INTERMEDIATE HUB LOCATIONS**
5 **IDENTIFIED IN THE NECA 4 TARIFF?**

6 A. No, not all central offices have the 3x1 electronic digital cross connect machines that
7 Verizon uses to multiplex DS-1's into DS-3's for multiple carriers. The 3x1 digital cross
8 connect machine is a large expensive piece of specialty transport equipment. In addition,
9 if AT&T orders DS-3 facilities to an office that is not a designated intermediate hub,
10 Verizon may not have sufficient interoffice facilities from that office to get to other
11 offices in the LATA.

12
13 Contrary to AT&T's insinuations, Verizon VA has made substantial accommodations in
14 its network architecture for the facilities and equipment of AT&T. Verizon VA has
15 informed the Petitioners about where in Verizon VA's network the CLECs can order
16 “Muxed DS-3” facilities by referring them to the NECA 4 Tariff. In accordance with
17 paragraph 202 of the *Local Competition Order*, Verizon has adapted its facilities to meet
18 CLEC demands and has notified AT&T about which central offices are designed for DS-
19 3 interface facilities. Moreover, this is entirely consistent with AT&T's practice as an
20 IXC when purchasing access using multiplexed DS-3 facilities.

21
22 **Q. IF VERIZON VA WERE REQUIRED TO OFFER INTERCONNECTION**
23 **FACILITIES AND HUBBING AT CENTRAL OFFICES OTHER THAN THOSE**

1 **INTERMEDIATE HUB LOCATIONS IDENTIFIED IN THE NECA 4 TARIFF,**
2 **SHOULD AT&T BE RESPONSIBLE FOR VERIZON VA’S COSTS IN**
3 **ADAPTING ITS FACILITIES?**

4 A. Yes. The Commission recognized that CLECs should be responsible for technically
5 feasible but expensive forms of interconnection. The Commission has said that if
6 Verizon VA “must accept the novel use of, and modification to, its network facilities to
7 accommodate the interconnector” then “of course, a requesting carrier that wishes a
8 ‘technically feasible’ but expensive interconnection would, pursuant to section 252(d)(1),
9 be required to bear the cost of that interconnection, including a reasonable profit.” *Local*
10 *Competition Order* ¶¶ 199, 202. Thus, if Verizon were required to offer interconnection
11 facilities and hubbing at locations other than those identified in the NECA 4 tariff,
12 Petitioners should be financially responsible for Verizon VA’s costs in modifying and
13 adding equipment to those locations.

15 **V. TANDEM TRANSIT TRAFFIC**
16 **(ISSUES I-4, III-1, III-2, IV-1, V-16)**

17
18A. **TANDEM TRANSIT SERVICE**

19 **Q. WHAT IS TANDEM TRANSIT TRAFFIC (Issue III-1)?**

20 A. Tandem transit traffic is a transitional service that Verizon VA provides to all CLECs
21 who interconnect with Verizon VA. Transit traffic is traffic that neither originates from
22 nor terminates to a Verizon VA customer, but originates from one CLEC’s network, and
23 terminates on another carrier’s network.

1 **Q. DOES VERIZON VA HAVE AN OBLIGATION TO PROVIDE TRANSIT**
2 **SERVICE TO PETITIONERS?**

3 A. No. Verizon VA is willing, however, to deliver transit traffic to and from Petitioners and
4 third-party carriers up to the level of a DS-1 per third-party carrier. While Verizon VA
5 is voluntarily agreeing to carry such traffic, it will not agree to do so without restriction.
6 That restriction is that Verizon VA will only deliver transit traffic up to the DS-1 level.

7
8 **Q. WHY DOES VERIZON VA LIMIT THE LEVEL OF TRANSIT TRAFFIC TO**
9 **THE DS-1 LEVEL?**

10 A. The Act requires each carrier to interconnect with the facilities of another requesting
11 carrier. The Petitioners can, therefore, (and should) negotiate arrangements for such
12 interconnection with other carriers. Verizon VA's provision of transit service up to a DS-
13 1 level of transit service per third-party carrier will assist the Petitioners while they
14 negotiate their own interconnection arrangements with such carriers. The DS-1
15 restriction limits traffic congestion and is a reasonable benchmark. Limiting congestion
16 at Verizon VA's tandems benefits all users of the public switched telephone network. If
17 there is no limitation on the level of traffic that travels over Verizon VA's network that is
18 non-Verizon VA traffic, then the Petitioners would have no incentive to interconnect
19 directly with other telecommunications carriers. Verizon VA would be obligated to
20 provide this service in perpetuity because the Petitioners would never have to negotiate
21 with another carrier, provision their own facilities to collect and receive traffic from
22 carriers other than Verizon VA, or directly bill one another. Once the traffic volumes
23 increase beyond a DS-1 level, however, there is no reason for Verizon VA to continue to

1 provide transit services. At this level, the traffic between the CLEC and the other carrier
2 is sufficient to justify their construction of a direct interconnection trunk for their traffic.
3 As addressed more fully below, Verizon VA needs to limit the traffic at its tandems to
4 prevent tandem exhaust. This is why Verizon VA limits the amount of transit traffic it
5 will provide Petitioners to the DS-1 level. Just as Verizon VA requires direct end office
6 trunking when the traffic Petitioners' deliver to Verizon VA tandems exceed the DS-1
7 level bound for any particular end office, Petitioners should also negotiate directly with
8 other carriers once the transit traffic volumes reach the DS-1 threshold. If this much
9 traffic is being carried, then the non-Verizon VA carriers should negotiate and implement
10 their own interconnection arrangements
11

12B. TANDEM EXHAUSTION

13 **Q. PLEASE EXPLAIN THE ISSUE REGARDING TANDEM EXHAUST (Issue I-4).**

14 A. Verizon VA has proposed that when a Petitioner's traffic that is routed through a Verizon
15 VA tandem to a particular end office exceeds the hundred call second ("CCS") busy hour
16 equivalent of one DS-1 at any time and/or 200,000 minutes of use for a single month, the
17 Petitioner should be required promptly to establish end office one-way or two-way traffic
18 exchange trunk groups between the appropriate Verizon VA end office and the
19 Petitioner's POI. In order to prevent Verizon VA's tandems from exhaustion, Verizon
20 VA must impose reasonable restrictions on the level of traffic to its tandems. As the
21 Petitioner's traffic grows and if it continues to be routed through Verizon VA's tandems
22 without limitation, those tandems will be used up.
23

1 **Q. PLEASE DESCRIBE HOW VERIZON VA DESIGNS ITS OWN**
2 **SWITCHING/TRUNKING NETWORK?**

3 A. For exchange access traffic, Verizon deploys Class 5 (end office) switches and tandem
4 switches. Each Verizon end-office switch subtends a designated tandem switch. Verizon
5 interconnects its end-offices through direct trunk groups. In addition, Verizon
6 interconnects its end-offices to a designated tandem switch through Common Final Trunk
7 Groups that carry both overflow traffic and traffic routed to a point beyond the Verizon
8 network (such as a POP or CLEC-IP) as necessary.

10 **Q. WHAT IS THE BASIS FOR THE DS-1 LEVEL OF TRAFFIC?**

11 A. This is the design criteria Verizon VA currently uses in its own network and was
12 established in the late 1980s. It was established as an economic trade-off and
13 engineering guideline to determine when direct trunking between two Bell Atlantic
14 switches should be established (as opposed to tandem routing). The last calculated
15 threshold was 12 trunks. When calling volumes between two switches exceeded 12
16 trunks of capacity, direct end office trunking was constructed. Over the last ten years
17 Verizon VA now provisions trunks between digital switches in building blocks of 24
18 trunks (a DS-1) – and because fiber optic transport costs would produce a criteria even
19 lower than 12 trunks, Verizon VA still uses the DS-1 design point.

21 **Q. WHY IS VERIZON TRYING TO NEGOTIATE FOR CLECS TO USE THE**
22 **SAME CRITERIA FOR ESTABLISHING DIRECT END OFFICE TRUNKING**
23 **AS VERIZON USES ITSELF?**

1 A. Since 1996 there has been a dramatic explosion in local interconnection trunking. In
2 2000 alone, interconnection trunk growth between Verizon VA and the CLECs increased
3 about 100%. As a result, Verizon VA has experienced more frequent and more rapid
4 exhaust of the capacity of its tandem switches. When this occurs, new tandem switches
5 must be added to the network. For instance, in Verizon East, 24 new tandem switches
6 have been added. Each time a new tandem is added, all carriers including Verizon must
7 rearrange significant quantities of existing trunks incurring substantial rearrangement
8 expenses. Rapid exhaust of Verizon VA's tandem switches negatively impacts all
9 carriers. To reduce the frequency of Verizon VA tandem exhaust, Verizon VA is
10 proposing that CLECs interconnecting with Verizon VA use similar design criteria for
11 establishing direct end-office trunking as Verizon VA uses for itself.

12
13 **Q. ARE THERE NEAR TERM TANDEM EXHAUST SITUATIONS IN VERIZON**
14 **VIRGINIA?**

15 A. Yes. The Richmond Turner Road 5ESS Tandem (RCMDVAIT52T) faces exhaust in
16 2001. This tandem will become exhausted because of CLEC and ISP demands for DS-1
17 and PRI trunk terminations in the Richmond LATA. The switch also has no ability to
18 grow beyond its current capacity. As a result, Verizon VA plans on deploying a new
19 tandem, the Grace Street 53T (RCMDVAIT76T), and migrating all InterLATA tandem
20 traffic from the Turner Road 5ESS to the Grace Street 53T. Approximately 30,000
21 trunks on the existing Turner Road 5ESS must be re-homed to the new Turner Road.

1 In addition, based on the projected tandem trunk requirements in the Washington LATA,
2 the Southwest 90T and Arlington 00T tandems are forecasted to exhaust in 2001. In
3 order to provide tandem relief for the two exhausting tandems in the Washington LATA,
4 the following change to Washington LATA tandem network will be made: Introduce the
5 new Arlington 78T (Irving Street) as the local tandem for Northern Virginia and migrate
6 all local traffic from the Southwest 90T and Arlington 00T to the new Arlington 78T.
7 Therefore, all carriers requiring IntraLATA connectivity to the Northern Virginia,
8 Verizon central offices in the Washington LATA must connect to the new Arlington 78T
9 tandem. Finally, the Roanoke/Luck Tandem (RONKVALK52T) faces exhaust in 2003.
10 The relief option(s) for the Luck Tandem have not been determined at this time.

11

12C. RATES FOR TRANSIT SERVICE

13 **Q. WHAT RATES SHOULD APPLY TO TRANSIT TRAFFIC (Issue III-2)?**

14 A. If Verizon VA is providing transit services up to the DS-1 level of traffic, it will do so at
15 TELRIC-based rates, i.e., a tandem switching charge. Verizon VA will also pass through
16 any charges from the third-party carrier. If, however, a Petitioner insists that Verizon VA
17 provide tandem transit services beyond the DS-1 level, and Verizon VA agrees or is
18 forced to provide such service, there would be additional charges. In that instance,
19 Verizon VA would charge a transit service trunking charge and a transit service billing
20 fee. These charges are not TELRIC-based, nor should they be, because Verizon VA is
21 not obligated to provide transit services. These additional charges are intended to make
22 Verizon VA whole for the service it provides and also supplies Petitioners with an
23 incentive to enter into their own interconnection agreements.

24

1D. THIRD-PARTY TRANSIT TRAFFIC

**Q. HOW SHOULD THIRD-PARTY TRANSIT TRAFFIC BE ROUTED AND
BILLED BY THE PARTIES (Issue IV-1)?**

A. Verizon VA's voluntary agreement to provide transit services up to the DS-1 level of traffic applies to all CLECs, Commercial Mobile Radio Service ("CMRS") providers, and Independent Telephone Companies ("ITCs") alike. Verizon VA's proposal provides that tandem transit traffic may be routed over the local interconnection trunks described in §§ 3-6 of Verizon VA's interconnection attachment.

WorldCom demands that Verizon VA must make arrangements directly with third parties for any compensation owed in connection with calls on WorldCom's behalf:

Verizon shall compensate [WorldCom] for such calls terminating to WorldCom using [WorldCom's] rates as described herein, and charge WorldCom for such calls terminating to that third party as if such calls had terminated in Verizon's network, using Verizon's rates as described herein.⁶

WorldCom's proposal is unfair in several respects. First, it does not compensate Verizon VA for the additional charges or costs the receiving CLEC, ILEC, CMRS carrier, or other LEC levies on Verizon VA for the delivery or termination of such traffic. Second, WorldCom's proposal obviates any need for WorldCom to interconnect directly with other carriers; instead, it can rely on Verizon VA as long as it wants. By requiring Verizon VA to treat all transit traffic as its own, as WorldCom's proposal suggests, WorldCom also relieves itself of its obligation under the Act, § 251(b)(5), to establish

⁶ WorldCom Proposed Interconnection Agreement, Attachment I § 4.8 *et seq.*

1 reciprocal compensation arrangements with other CLECs. Contrary to WorldCom's
2 proposal, Verizon VA's obligation to provide transit traffic services should not continue
3 "indefinitely." As the Massachusetts D.T.E. recognized in *Petition of MediaOne, Inc.*
4 *and New England Telephone and Telegraph*, Mass. D.T.E. 99-42/43 at 73-74, it should
5 be limited until such time as the CLECs' traffic increases to levels that warrant direct
6 interconnection with one another. WorldCom's proposal is also inconsistent with the
7 recent NY PSC *Local Traffic Order* at page 8, which acknowledged that "if a third-party
8 ILEC (e.g., Verizon) transports a call between the originating and terminating carriers, it
9 should have no responsibility to pay for its completion." Thus, the Commission should
10 reject WorldCom's proposal and allow tandem transit services to be routed and billed
11 according to Verizon VA's proposed interconnection attachment.

12 13E. RECIPROCAL TANDEM SERVICES

14 **Q. SHOULD AT&T PROVIDE VERIZON VA WITH TANDEM TRANSIT** 15 **SERVICES (Issue V-16)?**

16 A. Yes. Verizon VA is only asking AT&T to provide the same transit service to Verizon
17 VA--to the same extent and on the same terms--that Verizon VA provides to AT&T. If
18 AT&T directly interconnects with a third-party facilities-based LEC that Verizon VA
19 does not directly interconnect with, AT&T should be willing to provide Verizon VA with
20 the same transit service, accompanied with the same conditions, that Verizon VA
21 provides to AT&T. If the traffic level goes beyond the DS-1 level, Verizon VA will
22 negotiate with the third-party LEC to establish a direct interconnection agreement. Up
23 until that time, however, AT&T should provide Verizon VA with the same service that
24 Verizon VA has offered AT&T.

1 **VI. MISCELLANEOUS ISSUES (ISSUE V-1)**

2

3 **A. COMPETITIVE TANDEM SERVICES**

4 **Q. VERIZON VA OPPOSES INCLUDING AT&T'S COMPETITIVE TANDEM**
5 **ACCESS PROPOSAL IN THE INTERCONNECTION AGREEMENT. WHAT IS**
6 **THAT PROPOSAL?**

7 A. AT&T claims that as a CLEC it can offer a competitive tandem service--in competition
8 with Verizon--to IXC's. According to AT&T, the interconnection agreement between
9 Verizon VA and AT&T the CLEC, not the IXC, should cover this competitive service as
10 a meet point arrangement. In addition, AT&T claims that it should *share* in Verizon
11 VA's total access revenues.

12

13 **Q. SHOULD THE COMMISSION ADDRESS AT&T'S COMPETITIVE TANDEM**
14 **ACCESS PROPOSAL IN THIS PROCEEDING?**

15 A. No, this issue should not be addressed in this proceeding. AT&T and Verizon VA are
16 negotiating an interconnection agreement pursuant to § 251(c) of the Act, which only
17 affects the interconnection and exchange of local traffic. This issue, however, involves
18 only access traffic. Interconnection agreements are not intended to replace established
19 switched access tariffs and this Commission's and state commission decisions regarding
20 the treatment of intraLATA and interexchange toll traffic. In AT&T's position statement,
21 it claims to have "the right to offer service[s] to any interexchange carrier ("IXC") that
22 chooses to use AT&T service[s] as a tandem provider." If AT&T wants to provide
23 tandem services to IXC's, it is free to do so, but such an arrangement is between the IXC
24 and AT&T. This is not an issue properly addressed between two local exchange carriers

1 in an interconnection negotiation or arbitration. In the recent *ISP Remand Order*, this
2 Commission reaffirmed the principle that interexchange access traffic is “carved out” and
3 not a part of the “universe of traffic” that is subject to § 251(b)(5). In addition, the ability
4 to provide this tandem service is provided under Verizon’s federal access tariff--
5 Verizon’s Alternative Tandem Signaling service--where it properly belongs. This tariff is
6 not at issue in this proceeding.

7
8 **Q. IF AT&T’S COMPETITIVE TANDEM ACCESS PROPOSAL IS ADDRESSED IN**
9 **THIS PROCEEDING, SHOULD IT BE ADOPTED?**

10 A. No. There are technical problems when a Verizon VA end user originates a call and
11 AT&T wishes to act as a competitive access tandem provider. In addition, pursuant to its
12 proposal, AT&T seeks to “share” Verizon VA’s access revenues without relieving
13 Verizon VA of any of the functions and services it provides and for which it is
14 compensated. AT&T’s proposal is not a meet-point billing arrangement, which is
15 intended to dictate how two local exchange carriers bill and apportion access charges
16 when a call to an IXC is terminated or originated by the end user of the CLEC subtending
17 Verizon VA’s tandem. In AT&T’s competitive tandem service, AT&T’s customer is an
18 IXC, not the end user. Moreover, the ILEC’s unbundling requirement for its UNEs was
19 instituted to foster and develop *local* competition in the telecommunications market.
20 Verizon VA’s unbundling obligation was never meant to subsidize AT&T’s
21 interexchange service by providing AT&T switched access services at UNE rates.
22

1 **Q. WHAT ARE THE TECHNICAL PROBLEMS ASSOCIATED WITH AT&T'S**
2 **PROPOSAL?**

3 A. AT&T has indicated in the course of negotiations that it is only interested in providing
4 arrangements for competitive access tandem service when terminating traffic to Verizon
5 VA local end users. Simply put, originating traffic switched via two tandems results in
6 the loss of necessary billing detail. When a Verizon VA end user originates the call and
7 it is routed via Verizon VA's tandem, CIC codes that AT&T would need to terminate and
8 bill an originated call are stripped off by the tandem switch and would not be passed to
9 AT&T's competitive access tandem. AT&T acknowledges the technical shortcomings of
10 its own proposal in Schedule 4, Part B, § 4.7 of its proposed contract language.⁷
11 However, AT&T's proposed contract language does nothing to address this problem and
12 makes no distinction between traffic that terminates to and originates from Verizon VA
13 end users. If AT&T's proposed contract language is adopted, Verizon VA would be
14 obligated to do the technically impossible.

15
16 **Q. WHAT DO YOU MEAN WHEN YOU SAY THAT PURSUANT TO ITS**
17 **PROPOSAL AT&T SEEKS TO "SHARE" VERIZON VA'S ACCESS REVENUES**
18 **WITHOUT RELIEVING VERIZON VA OF ANY OF THE FUNCTIONS AND**
19 **SERVICES IT PROVIDES?**

⁷ "The Parties agree to cooperate in determining the future technical feasibility of routing originating meet point billing traffic via a Tandem of one Party and a Tandem of the other Party for the purpose of delivering such traffic to the Switched Access Customer." Verizon disagrees with AT&T's use of the term meet point billing traffic to describe this situation. This arrangement has nothing to do with meet point billing arrangements.

1 A. Under AT&T's proposal, when an IXC connects to its tandem and AT&T delivers that
2 traffic to the Verizon VA tandem, AT&T wants 10% of Verizon VA's switched exchange
3 access revenue. But, Verizon VA performs the same tandem switching and transport
4 functions as if AT&T were not involved and the IXC had delivered the traffic directly to
5 Verizon VA's tandem. Under its proposal, AT&T may relieve the IXC of a portion of its
6 responsibility but does not relieve Verizon VA of any of its responsibility or cost.
7 Nevertheless, AT&T wants Verizon VA to share the authorized access revenues that
8 cover that cost.

9
10 **Q. SHOULD THE INTERCONNECTION AGREEMENT ADDRESS**
11 **COMPETITIVE TANDEM SERVICES SINCE IT ALREADY ADDRESSES**
12 **MEET POINT BILLING ARRANGEMENTS?**

13 A. No. Meet point billing arrangements are part of the interconnection agreement because
14 each Party must jointly bill IXCs for the appropriate access charges when AT&T's local
15 end users make or receive calls involving an IXC. There is no need to include Verizon
16 VA's access services that are provided to IXCs in the interconnection agreement. As
17 previously noted, meet point billing arrangements dictate how two local exchange
18 carriers bill and apportion access charges--found in the Parties' respective access tariffs--
19 when a call to an IXC is originated or terminated by an AT&T end user subtending a
20 Verizon VA tandem. In AT&T's competitive tandem service the customer is an IXC, not
21 an end user. In a meet point billing arrangement, each Party has the right to have a
22 billing arrangement with their mutual customer--the IXC. Such an arrangement should
23 not be addressed in the interconnection agreement between Verizon VA and AT&T.